



## **RIDOT TMC Incident Statistics 1/1/2011 To 3/31/2011**

The Rhode Island transportation system serves 39 cities and towns: encompassing urban, suburban, and tourism areas. The Rhode Island Department of Transportation's Transportation Management Center (RIDOT TMC) has been addressing the problem of increasing congestion in Rhode Island by informing the traveler of crashes and unusual delays. In doing so, the TMC has provided measurable benefits to the transportation system, and has developed the technology and institutional awareness necessary to expand the Intelligent Transportation Systems (ITS) Program (called RhodeWays) to the benefit of Rhode Island travelers.

The RIDOT TMC maintains detailed statistics on incidents that we manage from our center. Because the data are entered by our TMC Operators, the statistics are dependent on what we can observe on the roadways with our equipment. Review and compilation of these statistics is done quarterly. By making these statistics available to you, we hope that you can learn more about the program and understand the benefit of the services we provide to the Rhode Island motoring public.

The types of incidents tabulated in this report include disabled vehicles, debris on the roadway, emergency roadwork, vehicle accidents, and vehicle rollovers. Additionally, a category exists for congestion delays that are outside of typical recurring congestion. The TMC does assist in information dissemination for planned events (such as construction) as well, but those types of events are not included in the statistics. Also, abandoned vehicles are not included since they tend to skew the statistics.

*NOTE: After reviewing the data collection process, the RIDOT TMC has decided that the Incident Recovery Time statistic is too subjective and difficult to accurately track. Therefore, that data has been removed from this report. The data collection procedure will be modified starting in July 2011 to better conform with FHWA and industry best practices. Subsequent incident statistics reports will reflect the changes in data collection.*

We hope you find this report interesting and that it helps in understanding the significant benefit that the RhodeWays program provides to the people who travel Rhode Island's roadways every day. Also, please remember to check the TMC website frequently for updates (<http://www.tmc.state.ri.us>), including construction and incident information.

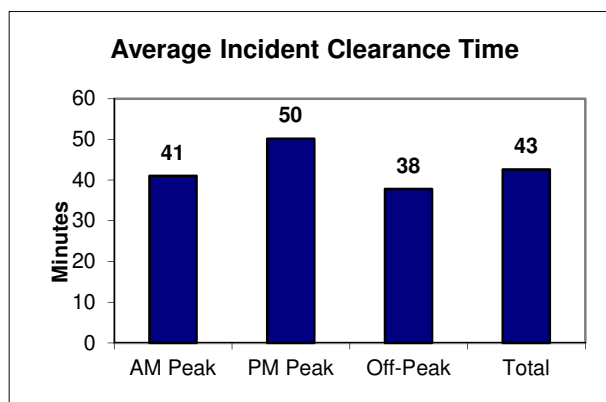
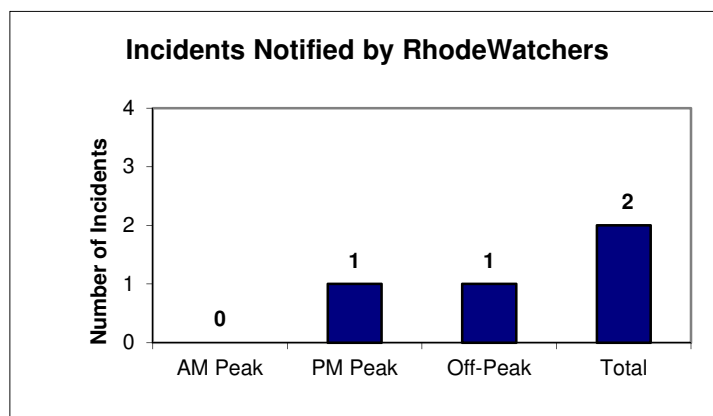
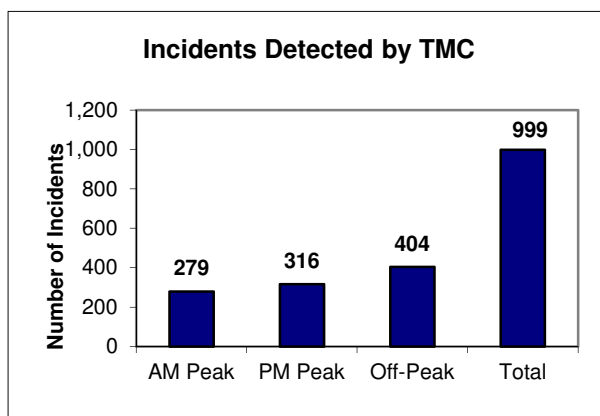
# RIDOT TMC Incident Statistics Report

## 1. Peak Period Incident Statistics\*

|                                    | AM Peak      | PM Peak      | Off-Peak     | Total         |
|------------------------------------|--------------|--------------|--------------|---------------|
| Number of Incidents                | 295          | 330          | 427          | 1052          |
| Avg. Incident Duration (min)       | 42           | 50           | 38           | 43            |
| Avg. Incident Clearance Time (min) | 41           | 50           | 38           | 43            |
| Avg. Incident Recovery Time (min)  | 4            | 0            | 0            | 0             |
| # Detected by TMC Operators (CCVE) | 102          | 84           | 137          | 323           |
| # Detected by TMC, State Police    | 177          | 232          | 267          | 676           |
| # Notified by RhodeWatchers        | 0            | 1            | 1            | 2             |
| # of Messages Posted VMS           | 9            | 17           | 18           | 44            |
| # of Messages Posted DMS           | 64           | 75           | 87           | 226           |
| # of Messages Posted HAR           | 30           | 18           | 34           | 82            |
| # of Messages posted Web           | 251          | 274          | 376          | 901           |
| Avg. Delay Cost**                  | \$179,180    | \$212,589    | \$160,264    | \$181,982     |
| Total Delay Cost                   | \$52,858,056 | \$70,154,523 | \$68,432,905 | \$191,445,485 |

\* AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday

\*\* Delay Cost is a function of incident duration, volume on the roadway, delay per person, and cost per hour of delay for both commercial and personal vehicles. Average delay cost includes only incidents with a lane blockage and represents average cost per incident.



NOTE: After reviewing the data collection process, the RIDOT TMC has decided that the Incident Recovery Time statistic is too subjective and difficult to accurately track. Therefore, that data has been removed from this report. The data collection procedure will be modified starting in July 2011 and this page will be further modified to reflect the forthcoming changes.

*Note: Statistics in this report are only for incidents that the TMC reported or responded to. They do not include all incidents that occurred on Rhode Island roadways*

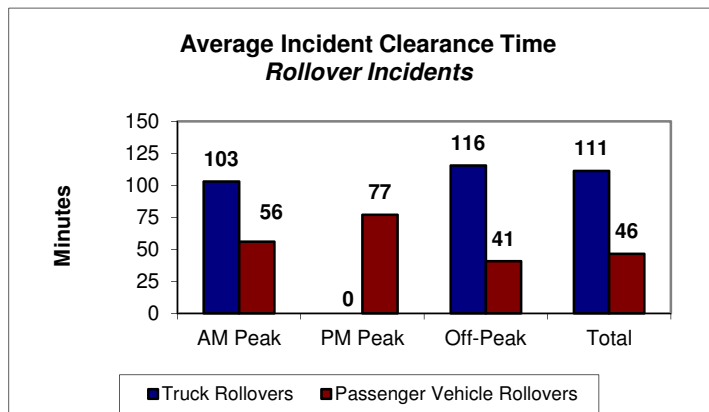
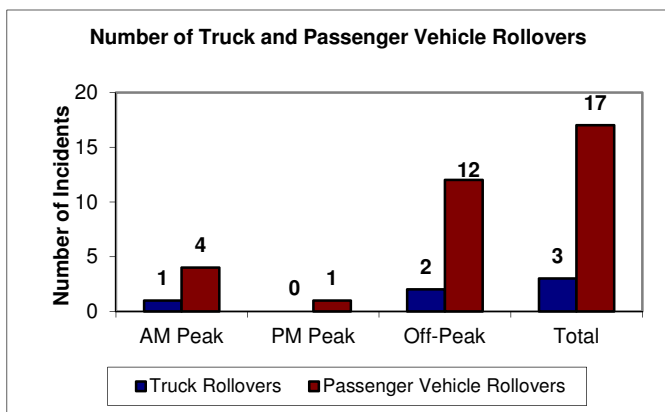
**Incident Clearance Time** is the time from the start of an incident (or when it is detected) to the time it is cleared from the roadway.

**Incident Recovery Time** is the time it takes for the roadway to be rid of residual delay following incident clearance. It is based on TMC Operator observation.

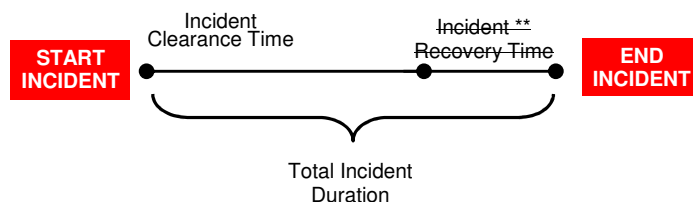
## 2. Rollover Incident Statistics\*

| VEHICLES                            | Trucks  |         |          |       | Automobiles |         |          |       |
|-------------------------------------|---------|---------|----------|-------|-------------|---------|----------|-------|
|                                     | AM Peak | PM Peak | Off-Peak | Total | AM Peak     | PM Peak | Off-Peak | Total |
| No. of Rollovers                    | 1       | 0       | 2        | 3     | 4           | 1       | 12       | 17    |
| Avg. Incident Duration (min)        | 126     | 0       | 116      | 119   | 62          | 77      | 41       | 48    |
| Avg. Incident Clearance Time (min)  | 103     | 0       | 116      | 111   | 56          | 77      | 41       | 46    |
| Avg. Incident Recovery Time (min)** | 23      | 0       | 0        | 23    | 6           | 0       | 0        | 1     |

\* AM Peak: 6:00AM to 10:00 AM, PM Peak: 3:00PM to 7:00PM, Monday - Friday



| Roadway                   | Exit Number | Number Of Rollovers |
|---------------------------|-------------|---------------------|
| Interstate 295 Northbound | 3B          | 1                   |
| Interstate 95 Northbound  | 27          | 1                   |
| Interstate 95 Northbound  | 5A          | 4                   |
| Interstate 95 Northbound  | 30          | 1                   |
| Interstate 95 Northbound  | 28          | 1                   |
| Interstate 95 Northbound  | 24          | 1                   |
| Interstate 95 Southbound  | 28          | 1                   |
| Interstate 95 Southbound  | 14          | 1                   |
| Interstate 95 Southbound  | 16          | 1                   |
| Route 006 Eastbound       | N/A         | 2                   |
| Route 010 Northbound      | N/A         | 1                   |
| Route 014 Eastbound       | N/A         | 1                   |
| Route 037 Westbound       | 4A          | 1                   |
| Route 114 Northbound      | N/A         | 1                   |
| Route 138 Eastbound       | N/A         | 1                   |
| Route 146 Northbound      | N/A         | 1                   |
|                           |             |                     |
|                           |             |                     |
|                           |             |                     |
|                           |             |                     |
|                           |             |                     |
| <b>TOTAL</b>              |             | <b>20</b>           |



**\*\*After reviewing the data collection process, the RIDOT TMC has decided that the Incident Recovery Time statistic is too subjective and difficult to accurately track. Therefore, that data has been removed from this report. The data collection procedure will be modified starting in July 2011 and this page will be further modified to reflect the changes.**

### 3. Incidents by Severity Level

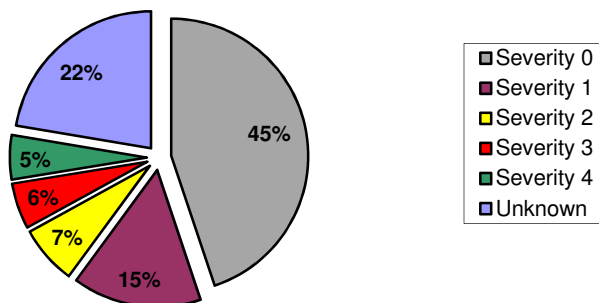
| Severity Level* | No. of Incidents |
|-----------------|------------------|
| Severity 0      | 472              |
| Severity 1      | 160              |
| Severity 2      | 73               |
| Severity 3      | 57               |
| Severity 4      | 55               |
| Unknown         | 235              |
| <b>Total</b>    | <b>1052</b>      |

Number of Incidents with a Secondary Incident:

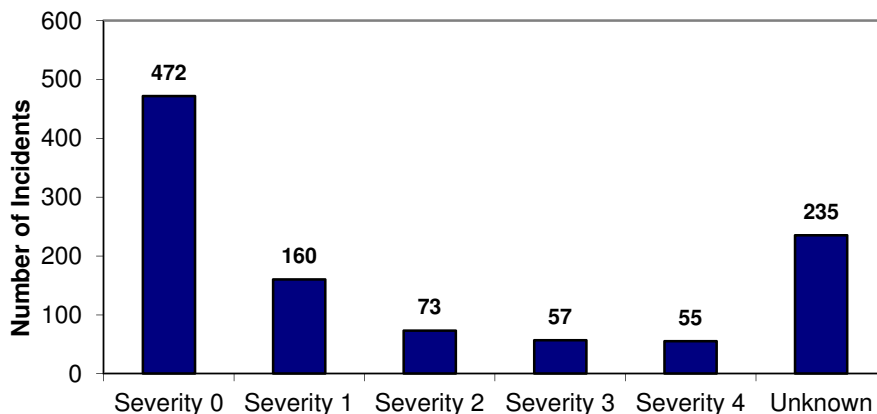
Percentage of Incidents with a Secondary Incident:

Note: A "secondary" incident is one that is the result of an earlier incident.

**Percent of Incidents by Severity Level**



**Number of Incidents by Severity Level**



#### \*Definition of Incident Severity Levels:

*Severity 0:* No injuries and no travel lanes blocked

*Severity 1:* 1/4+ travel lanes blocked with no injuries OR median/shoulder closed with injuries

*Severity 2:* 1/3 or 2/4+ lanes blocked OR Fire w/ 0 lanes closed OR hazardous materials (HAZMAT) w/ 0 lanes closed

*Severity 3:* 1/2 or 2/3 or 3/4+ lanes blocked OR Fire w/ 1/3 or 2/4 lanes closed OR Hazmat w/ 2/4 lanes closed

*Severity 4:* All travel lanes blocked OR fatality OR Hazmat w/ clean-up OR Fire w/ 1/2, 2/3, 3/4 lanes closed OR Structural damage w/ 1/3, 2/3+ lanes closed

*Unknown:* Incidents without a recorded severity level

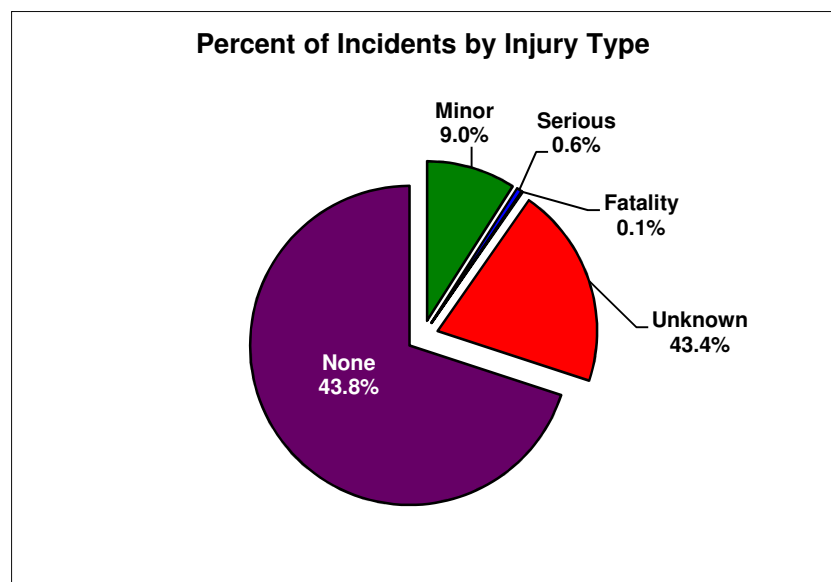
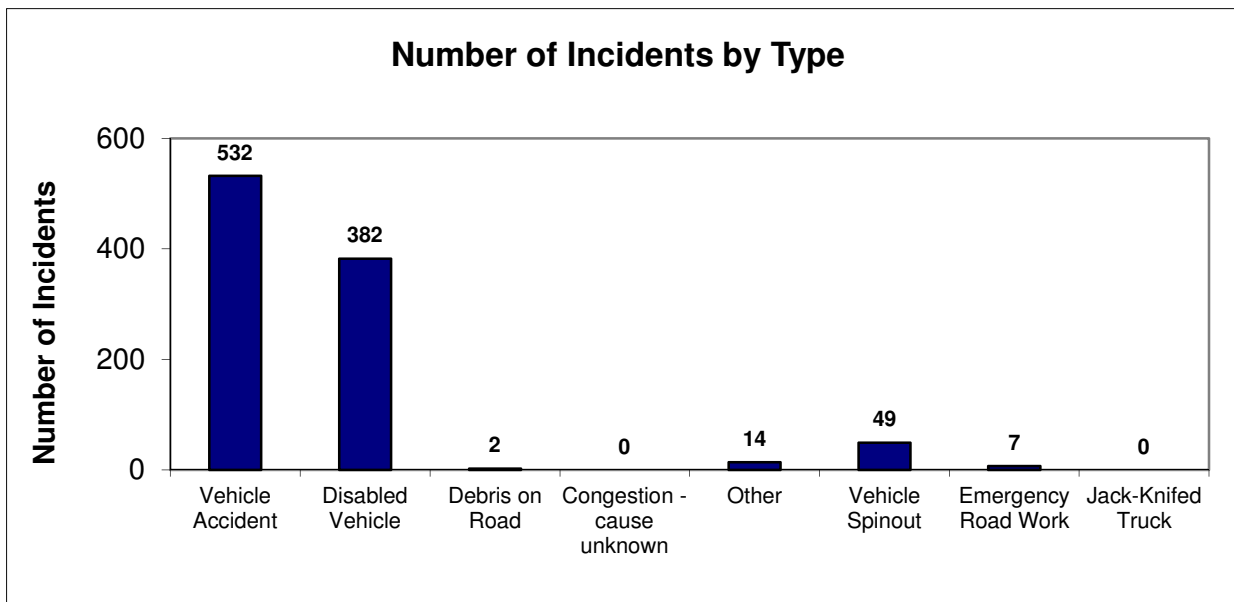
Note: For travel lanes blocked terminology, "1/4" indicates 1 out of 4 lanes blocked

#### 4. Incidents by Type

| Incident Type                    | No. of Incidents |
|----------------------------------|------------------|
| Vehicle Accident                 | 532              |
| Disabled Vehicle                 | 382              |
| Debris on Road                   | 2                |
| Congestion - cause unknown       | 0                |
| Other                            | 14               |
| Vehicle Spinout                  | 49               |
| Emergency Road Work              | 7                |
| Jack-Knifed Truck                | 0                |
| <i>Total Number of Incidents</i> | <i>986</i>       |

#### 5. Incidents by Injury Type

| Injury Type  | No. of Incidents |
|--------------|------------------|
| Minor        | 95               |
| Serious      | 6                |
| Fatality     | 1                |
| Unknown      | 214              |
| None         | 736              |
| <i>Total</i> | <i>1052</i>      |



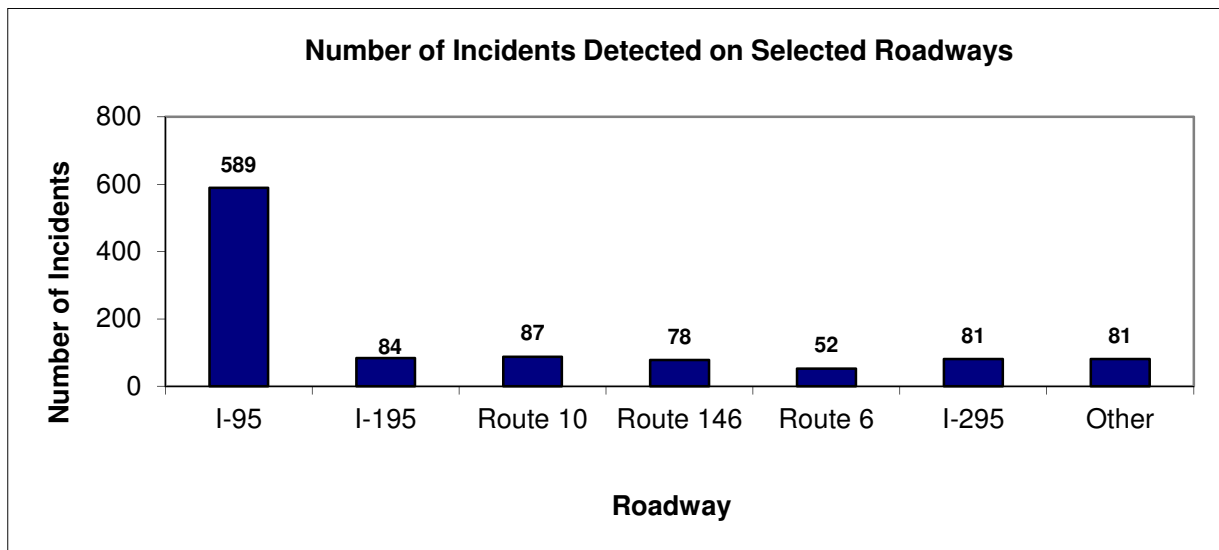
## 6. Incidents by Pavement and Weather Conditions

| <b>Pavement Condition</b>    | <b>No. of Incidents</b> |
|------------------------------|-------------------------|
| Dry                          | 703                     |
| Wet                          | 197                     |
| Icy                          | 36                      |
| Snow-Covered                 | 114                     |
| Flooded                      | 2                       |
| Other                        | 0                       |
| <i>Total</i>                 | <i>1052</i>             |
| <b>Precipitation</b>         |                         |
| None                         | 835                     |
| Light-moderate rain falling  | 95                      |
| Heavy rain falling           | 10                      |
| Light-moderate sleet falling | 6                       |
| Heavy sleet falling          | 5                       |
| Light-moderate snow falling  | 67                      |
| Heavy snow falling           | 34                      |
| <i>Total</i>                 | <i>1052</i>             |
| <b>Wind</b>                  |                         |
| Calm to Moderate             | 987                     |
| Moderate to Strong           | 61                      |
| Gusts over 50 mph            | 0                       |
| Gusts over 75 mph            | 0                       |
| Hurricane                    | 0                       |
| Other                        | 0                       |
| N/A                          | 4                       |
| <i>Total</i>                 | <i>1052</i>             |
| <b>Visibility</b>            |                         |
| Clear                        | 870                     |
| Light fog                    | 30                      |
| Dense fog                    | 0                       |
| Reduced- rain                | 44                      |
| Reduced-snow                 | 76                      |
| Poor-heavy rain/sleet        | 2                       |
| Poor-heavy snow              | 28                      |
| Reduced-smoke                | 2                       |
| Other                        | 0                       |
| N/A                          | 0                       |
| <i>Total</i>                 | <i>1052</i>             |

## 7. Incidents Detected by Primary Notifier on Selected Roadways

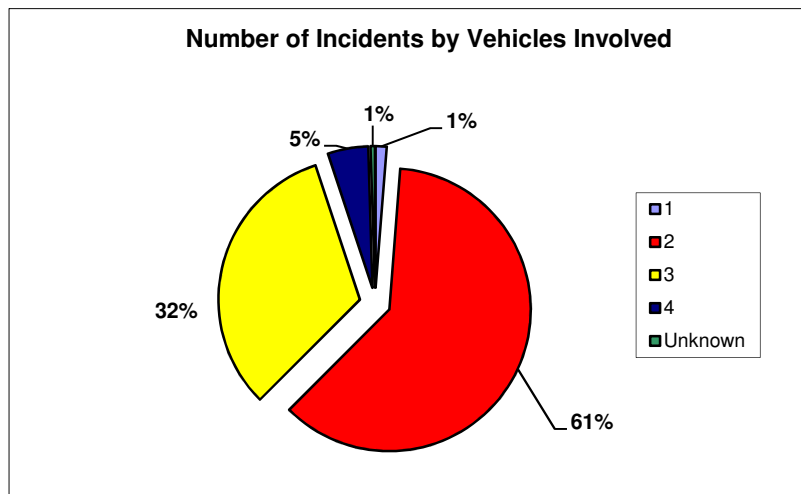
| Roadway | Primary Notifier      | No. of Incidents |
|---------|-----------------------|------------------|
| I-195   | TMC Operator          | 28               |
|         | State Police Scanner  | 47               |
|         | Local Fire Department | 1                |
|         | Rhode Watcher         | 0                |
|         | Media/MetroNetworks   | 0                |
|         | Traffic.com           | 0                |
|         | Transcom              | 0                |
|         | Other                 | 8                |
|         | <b>Total</b>          | <b>84</b>        |
| I-95    | TMC Operator          | 207              |
|         | State Police Scanner  | 314              |
|         | Local Fire Department | 0                |
|         | Rhode Watcher         | 0                |
|         | Media/MetroNetworks   | 0                |
|         | Traffic.com           | 0                |
|         | Transcom              | 0                |
|         | Other                 | 68               |
|         | <b>Total</b>          | <b>589</b>       |
| I-295   | TMC Operator          | 14               |
|         | State Police Scanner  | 53               |
|         | Local Fire Department | 0                |
|         | Rhode Watcher         | 1                |
|         | Media/MetroNetworks   | 1                |
|         | Traffic.com           | 0                |
|         | Transcom              | 0                |
|         | Other                 | 12               |
|         | <b>Total</b>          | <b>81</b>        |

| Roadway   | Primary Notifier      | No. of Incidents |
|-----------|-----------------------|------------------|
| Route 10  | TMC Operator          | 25               |
|           | State Police Scanner  | 50               |
|           | Local Fire Department | 0                |
|           | Rhode Watcher         | 1                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 0                |
|           | Other                 | 11               |
|           | <b>Total</b>          | <b>87</b>        |
| Route 146 | TMC Operator          | 27               |
|           | State Police Scanner  | 43               |
|           | Local Fire Department | 0                |
|           | Rhode Watcher         | 0                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 1                |
|           | Other                 | 8                |
|           | <b>Total</b>          | <b>79</b>        |
| Route 6   | TMC Operator          | 14               |
|           | State Police Scanner  | 31               |
|           | Local Fire Department | 0                |
|           | Rhode Watcher         | 0                |
|           | Media/MetroNetworks   | 0                |
|           | Traffic.com           | 0                |
|           | Transcom              | 0                |
|           | Other                 | 7                |
|           | <b>Total</b>          | <b>52</b>        |



## 8. Incidents by Number of Vehicles Involved

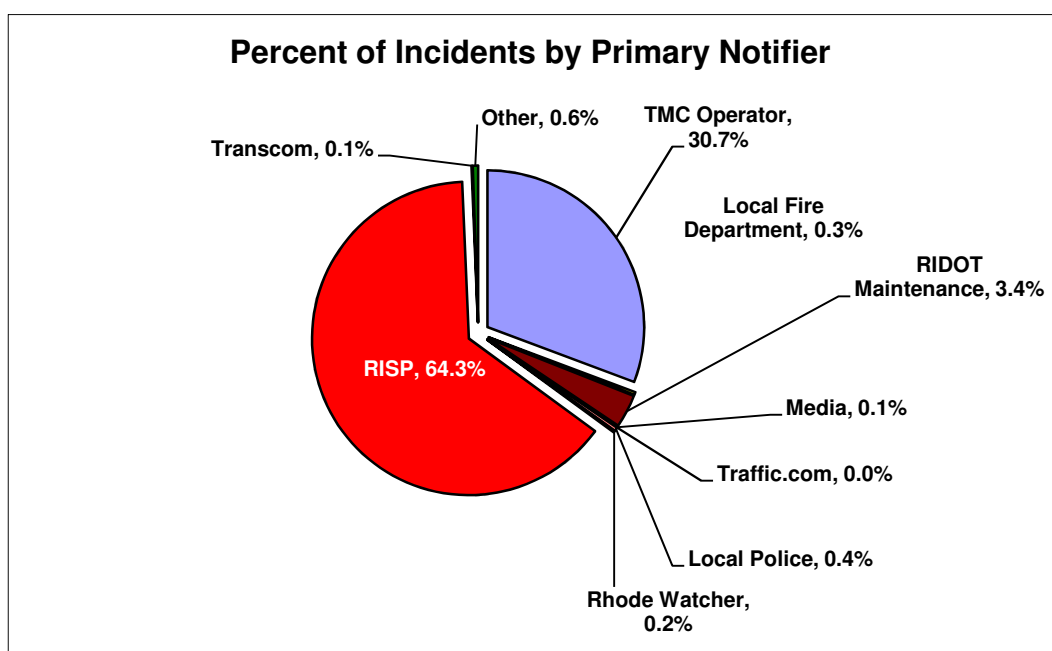
| No. of Vehicles Involved | No. of Incidents |
|--------------------------|------------------|
| 1                        | 13               |
| 2                        | 637              |
| 3                        | 337              |
| 4                        | 48               |
| 5                        | 10               |
| 6                        | 2                |
| 7                        | 0                |
| 8                        | 0                |
| 9                        | 0                |
| 10+                      | 0                |
| Unknown                  | 5                |
| <b>Total Incidents</b>   | <b>1052</b>      |



## 9. Incident Notification

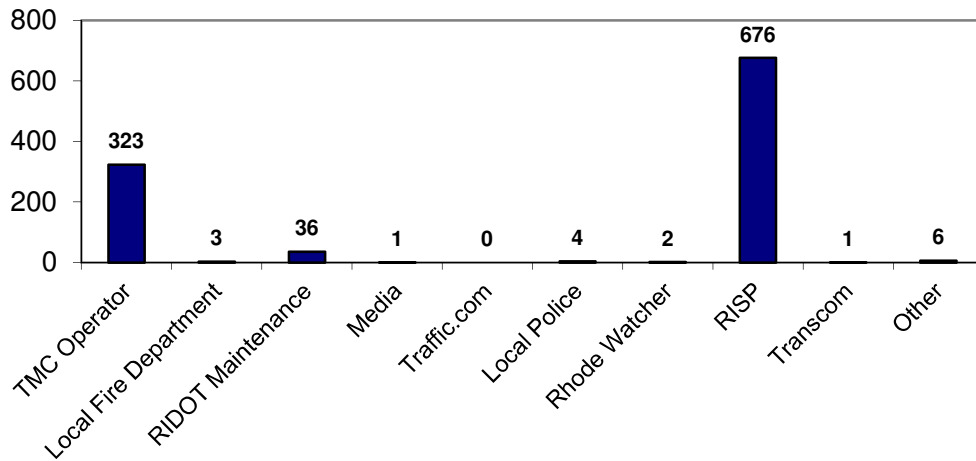
| Primary Notifier*     | No. of Incidents |
|-----------------------|------------------|
| TMC Operator          | 323              |
| Local Fire Department | 3                |
| RIDOT Maintenance     | 36               |
| Media                 | 1                |
| Traffic.com           | 0                |
| Local Police          | 4                |
| Rhode Watcher         | 2                |
| RISP                  | 676              |
| Transcom              | 1                |
| Other                 | 6                |
| <b>Total</b>          | <b>1052</b>      |

\*First notifier of the incident to TMC





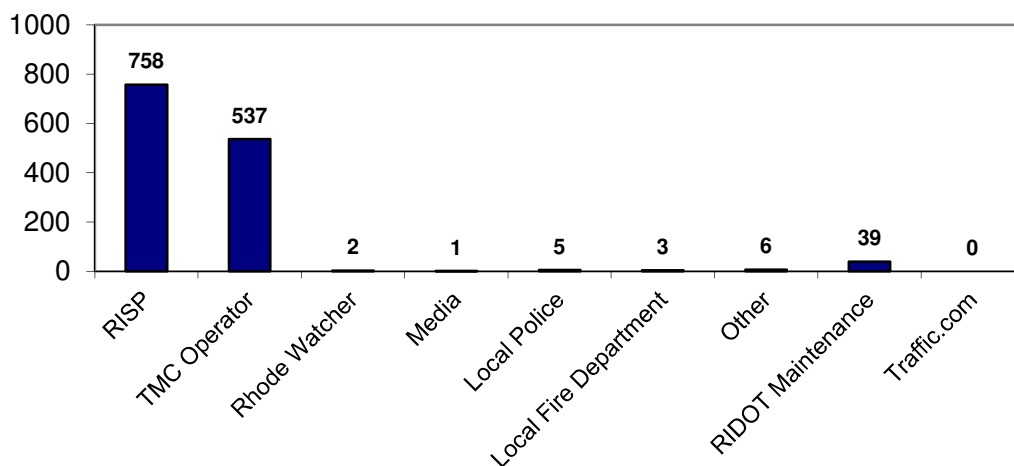
### Number of Incidents by Primary Notifier



| Notifier              | No. of Incidents |
|-----------------------|------------------|
| RISP                  | 758              |
| TMC Operator          | 537              |
| Rhode Watcher         | 2                |
| Media                 | 1                |
| Local Police          | 5                |
| Local Fire Department | 3                |
| Other                 | 6                |
| RIDOT Maintenance     | 39               |
| Traffic.com           | 0                |
| Transcom              | 1                |

*Note: Primary notifier indicates the first notifier of the incident to the TMC. Additional notifiers are also logged, and are represented in the statistics for "all notifiers".*

### Number of Incidents by All Notifiers



## 10. Incident Response

| On-Scene Responding Agency | No. of Incidents | Percent of Total Incidents |
|----------------------------|------------------|----------------------------|
| State Police               | 920              | 87.45%                     |
| Tow                        | 435              | 41.35%                     |
| Local Fire Department      | 163              | 15.49%                     |
| EMS                        | 161              | 15.30%                     |
| Local Police               | 37               | 3.52%                      |
| Service Patrol             | 10               | 0.95%                      |
| Mass Highway               | 1                | 0.10%                      |
| DOT                        | 22               | 2.09%                      |
| Hazmat                     | 1                | 0.10%                      |
| DEM                        | 1                | 0.10%                      |
| Connecticut DOT            | 2                | 0.19%                      |
| Construction               | 2                | 0.19%                      |
| Coast Guard                | 0                | 0.00%                      |
| Department of Health       | 1                | 0.10%                      |
| K-9                        | 0                | 0.00%                      |
| RIPTA                      | 0                | 0.00%                      |

|                                       | # of Incidents |
|---------------------------------------|----------------|
| # Involved Equipment(HAR,VMS or CCVE) | 261            |
| # of VMS Messages                     | 44             |
| # of DMS Messages                     | 226            |
| # of HAR Messages                     | 82             |
| # of Web Messages                     | 901            |

*Note: Numbers and percentages in upper table indicate how many of the incidents during the month were responded to by the agency indicated. Note that multiple agencies may respond to an incident, so percentages do not add up to 100%.*

